THE TOOL COMPANY

DRILL PRESS

■ STOCK No.65028 ■ PART No.GD13/5C

• INSTRUCTIONS •

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.

10/2001

GENERAL INFORMATION

This manual has been compiled by Draper Tools and is an integrated part of the power tool equipment, which should be kept with the machine.

This manual describes the purpose for which this tool has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation of the machine, before performing any kind of adjustment to the machine, and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both machine and operator safety, together with longer life of the tool itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the machine.

Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tool policy of continuous improvement determines the right to make modifications without prior warning.

DRILL PRESS

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DECLARATION OF CONFORMITY

We
Draper Tools Ltd. Hursley Road, Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. England.

Declare under our sole responsibility that the product:

Stock No:- 65028.

Part No:- GD13/5C.

Description:- Pillar Drill.

To which this declaration relates is in conformity with the following directive(s) 98/37/EC, 73/23/EEC & 89/336.

JOHN DRAPER
Managing Director

08/03/2001

SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Part No	GD13/5C
Stock No	65028
Drilling Capacity	13mm
Chuck Capacity	13mm
Spindle Taper	MT2
Speeds (RPM)	5 (600 - 2800rpm)
Swing	264mm
Spindle Travel	65mm
Column Diameter	60mm
Table Size	250mmØ
Base Size	205 x 345mm
Motor Size	250W - (230V/50Hz)
Height	740mm
Nett Weight	33/35kg
Sound pressure level	70db(A)

ALWAYS WEAR EAR PROTECTION

GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

Should the machine develop any fault, please return the complete tool to your nearest authorized warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone: (023) 8026 6355.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited

POWER SUPPLY

CONNECTING YOUR MACHINE TO THE POWER SUPPLY: (230V)
To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewireable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced an ASTA approved BS1362 fuse must be used of the same rating, marked thus ASTA .
The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug (i.e. red). Fuse covers are available from your Draper Tools stockist.
If the fitted plug is not suitable, it should be cut off and destroyed. *The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.

***WARNING:**
A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

WARNING: THIS APPLIANCE MUST BE EARTHED.
The mains lead is coloured Green and Yellow - Earth, Blue – Neutral & Brown – Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured green and yellow must be connected to the terminal in your plug marked with the letter 'E' or by the earth symbol ⏚ or coloured green or green and yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black or blue. The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.

EXTENSION LEAD CHART:
Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length	Wire Size mm2			
7.5M	0.75	0.75	1.0	1.25
15M	0.75	0.75	1.0	1.5
22.5M	0.75	0.75	1.0	1.5
30M	0.75	0.75	1.25	1.5
40M	0.75	1.25	1.5	2.5

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

WARNING
Please read the following instructions carefully, failure to do so could lead to serious personal injury.

IMPORTANT
Draper Tools Limited recommends that this machine should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us in writing and we will advise you.

1. **KNOW YOUR POWER TOOL**
   Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.
2. **KEEP WORK AREA CLEAN**
   Cluttered areas and benches invite accidents. Floors must not be slippery due to oil or sawdust.
3. **AVOID DANGEROUS ENVIRONMENTS**
   Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lit. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.
4. **KEEP CHILDREN AWAY**
   All visitors should be kept a safe distance from work area.
5. **STORED TOOLS**
   When not being used, all tools should be stored in a dry, locked cupboard or out of the reach of children.
6. **WEAR PROPER CLOTHING**
   Do not wear loose clothing, neckties or jewellery (rings, wristwatches) to catch in moving parts. NONSLIP footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.
7. **USE SAFETY GOGGLES (Head Protection)**
   Wear CE approved safety goggles at all times. Normal spectacles only have impact resistant lenses, they are NOT safety glasses. Also, use face or dust mask if application is dusty and ear protectors (plugs or muffs) during extended periods of operation.
8. **NOISE LEVELS**
   Some types of machines may have high noise levels when working. In such cases ear protection must be worn.
9. **VIBRATION LEVELS**
   Hand held power tools produce different vibration levels. You should always refer to the specifications and relevant Health and Safety guide.
10. **DUST EXTRACTION**
    If your tool is fitted with a dust extraction fitting, always ensure that it is connected and being used with a dust extractor. Vacuum cleaners can be used if suitable for the material being extracted.
11. **PROTECT YOURSELF FROM ELECTRIC SHOCK**
    When working with power tools, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). If you are using a power tool in extreme conditions (e.g. high humidity or generating metal dust), always use an RCD (residual current device) at the power socket.
12. **STAY ALERT**
    Always watch what you are doing and use common sense. Do not operate a power tool when you are tired or under the influence of alcohol or drugs.
13. **WHEN WORKING OUT OF DOORS**
    Only use extension leads designed for that purpose.
14. **ACCESS TO MAINS SOCKET**
    If a stationary machine is fitted with a moulded plug and cable, the machine should not be positioned so that access to the mains socket is restricted.
15. **DISCONNECT POWER TO THE TOOL**
    When not in use, before servicing and when changing accessories such as cutters, etc.
16. **AVOID ACCIDENTAL STARTING**
    Make sure the switch is in the OFF position before plugging the machine into the power supply.
17. **NEVER LEAVE MACHINE RUNNING UNATTENDED**
    Turn power off. Do not leave machine until it comes to a complete stop.
18. **DO NOT ABUSE THE CORD**
    Never carry the tool by the power cable or pull it from the socket. Keep the power cable away from heat, oil and sharp edges.
19. **NEVER STAND ON TOOL**
    Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials above or near the tool, so that it is necessary to stand on the tool to reach them.
20. **CHECK DAMAGED PARTS**
    Check for damage to parts, breakage of parts, mountings and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
21. **KEEP GUARDS IN PLACE**
    And in working order.
22. **MAINTAIN TOOLS WITH CARE**
    Keep tools sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories. All extension cables must be checked at regular intervals and replaced if damaged. Always keep the hand grips on the tool clean, dry and free of oil and grease.
23. **USE RECOMMENDED ACCESSORIES**
    Consult the owners manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.
24. **REMOVE ADJUSTING KEYS AND WRENCHES**
    Form a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
25. **SECURE WORK**
    Use clamps or a vice to hold work. This frees both hands to operate the tool.
26. **DO NOT OVERREACH**
    Keep proper footing and balance at all times.
27. **USE RIGHT TOOL**
    Do not force the tool or attachment to do a job for which it was not designed.
28. **DO NOT FORCE TOOL**
    It will do the job better and safer at the rate for which it was designed.
29. **DIRECTION OF FEED**
    Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
30. **WHEN DRILLING OR SCREWING INTO WALLS**
    Always make sure there is no danger of hitting any hidden power cables, water or gas pipes in the wall.

IMPORTANT NOTE
Residual Risk. Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution !

ADDITIONAL SAFETY RULES FOR DRILL PRESSES

1. This drill press is intended for use only with drill bits. The use of any other accessories may be hazardous.
2. **CHECK** to see that the drill bit is securely locked in the chuck.
3. **CORRECT DRILLING SPEEDS**
   Important factors which determine the best speed to use in any drill press operation are:
   (a) The smaller the drill the greater the required r.p.m. (revolutions per minute)
   (b) In soft materials the speed should be higher than for hard materials.
4. **MAKE** sure that the chuck key is removed before turning on power.
5. **CHECK** to see that the chuck is securely fastened to the spindle.
6. **CAUTION**
   When practical, use a vice or clamps to secure workpiece to avoid workpiece rotating with the drill bit.
7. **SECURE** the tool to a workbench or floor. If during operation there is any tendency for the drill press to tip over, slide or walk on the supporting surface, the drill base must be secured to the supporting surface with fasteners through the holes located in the drill press base.
8. For your safety DO NOT wear gloves when operating a drill press.

UNPACKING AND CHECKING CONTENTS

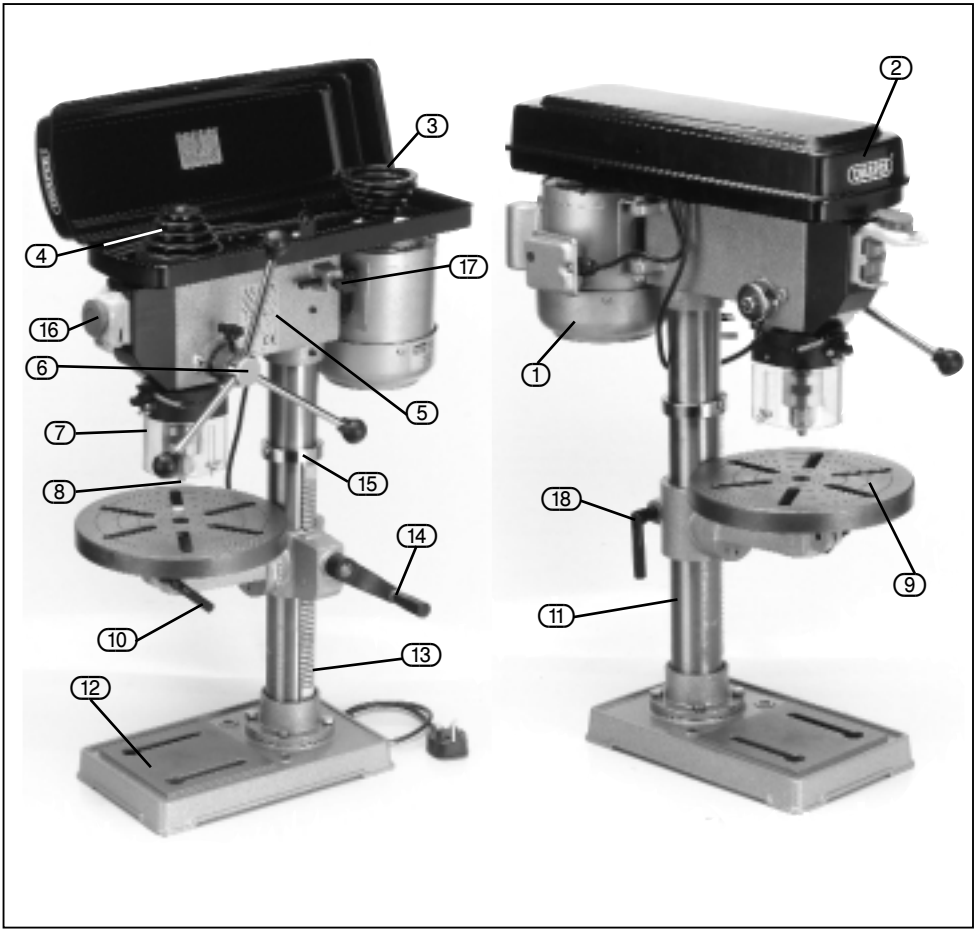
Carefully unpack the bench drill and all loose items from the carton. Illustrated below is the bench drill and all loose items. NOTE: Some loose parts may be packed inside the pulley cover.

Fig.1.

Now referring to Fig.1. carefully check that all the parts are present.

Please contact the stockist where your purchase was made if you have any enquiries, eg problems with assembly, apparent missing/damaged parts, help with accessories available or technical advice or alternatively call the Draper Helpline on (023) 8049 4344.

GETTING TO KNOW YOUR DRILL PRESS



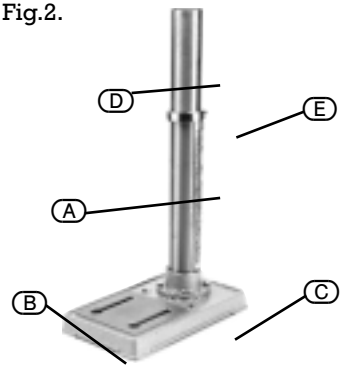
1. MOTOR
2. PULLEY COVER
3. MOTOR PULLEY
4. SPINDLE PULLEY
5. SPECIFICATION LABEL
6. DOWN FEED ASSEMBLY
7. CHUCK GUARD
8. CHUCK
9. TABLE
10. TABLE LOCKING HANDLE
11. COLUMN
12. BASE
13. RACK
14. TABLE RISE AND FALL HANDLE
15. RACK SECURING RING
16. NO-VOLT TYPE ON/OFF SWITCH
17. DRIVE BELT - TENSION ADJUSTER
18. RISE AND FALL LOCKING HANDLE

ASSEMBLY

ASSEMBLING THE DRILL PRESS

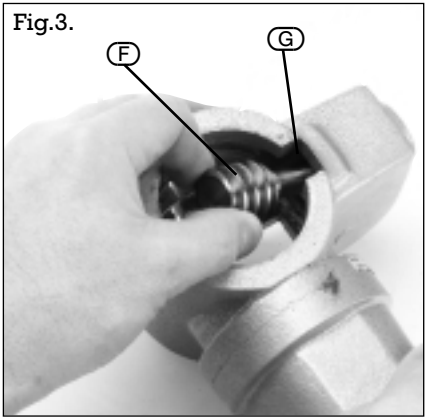
1. Secure column (A) to base (B) using the four bolts (C). Loosen grub screw and remove collar (D) along with the rack (E).

Fig.2.



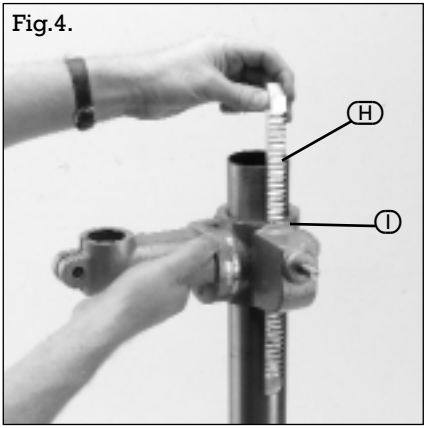
2. Locate worm gear (F) into hole (G) as shown in Fig.3.

Fig.3.



3. Place rack (H) in position in table bracket (I), as shown in Fig.4. and slide onto column.

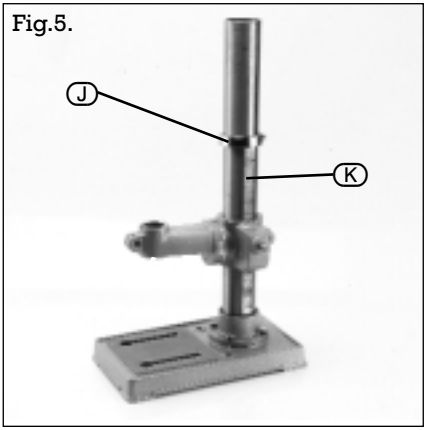
Fig.4.



ASSEMBLY

4. Ease table bracket and rack all the way down onto the column. Replace collar (J) and re-tighten the grub screw, locking rack (K) into place.

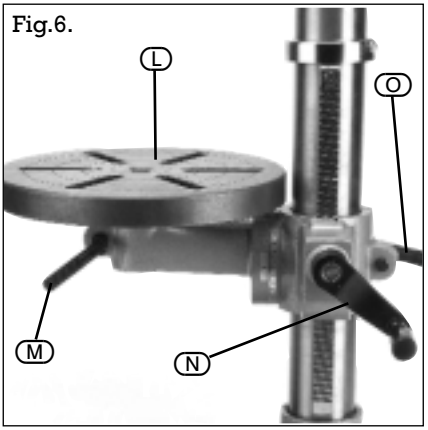
Fig.5.



5. Slide table (L) into the table bracket as shown in Fig.6 and lock into place using the table locking handle (M).

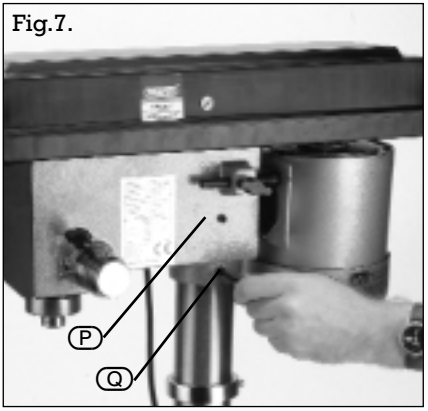
6. Fix table raising handle (N) and bracket locking handle (O) as shown in Fig 6.

Fig.6.



7.Place the drill press head (P) onto column as far as it will go (seek assistance as it is heavy). Align the head and table to drill press base and tighten the two head locking screws (Q) as shown in Fig 7.

Fig.7.



ASSEMBLY

8. Screw the three downfeed handles (R) into the three holes located in the pinion shaft as shown in Fig 8.

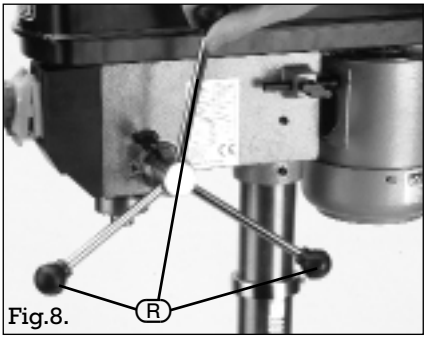


Fig.8.

9. Making sure that the chuck (S) is opened to its capacity, place it down on a bench. Clean any excess grease off the large end of the spindle (T). Insert the taper into the back of the chuck and with a scrap piece of timber and a hammer firmly tap them together.

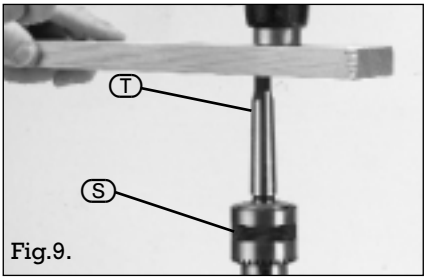


Fig.9.

10. Loosen the nut and bolt (U) Fig.10 and slide the chuck guard (V) up onto the collar (W). Tighten the nut and bolt and lift the guard into the upright position.

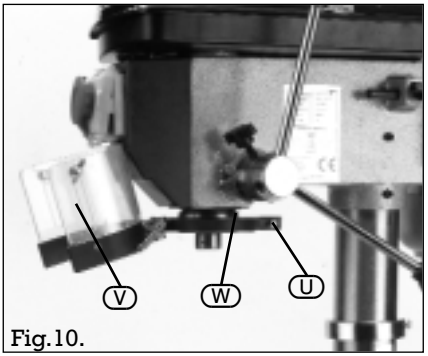


Fig.10.

11. Now clean the other end of the arbor (X) Fig.11 from grease and offer it up to the spindle (Y). Rotate the arbor and chuck until the flats on the arbor engage into the spindle (Y). Then firmly tap once using a hammer and scrap piece of timber. Should it be required, removal of the arbor from the spindle is achieved by lowering the spindle, and with the depth gauge, lock it in the down position. On the side of the spindle is a hole which exposes the top of the arbor (if this cannot be seen fully, rotate the chuck slightly). Now using the tool provided, tap into the hole forcing the arbor down and out.

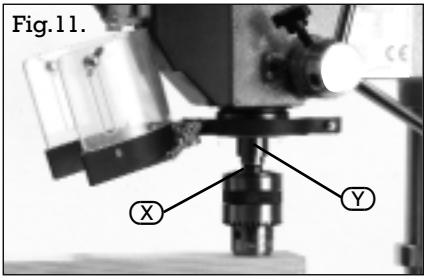


Fig.11.

OPERATION AND USE

NO-VOLT ON/OFF SWITCH: (Fig 12)
The drill is fitted with a no-volt switch with an emergency shut-off cover (Z).

In the event of an emergency, closing the cover firmly will cause the stop button to be triggered, thus stopping the machine. To re-open the cover, the red button requires sliding up which in turn will release the stop button.

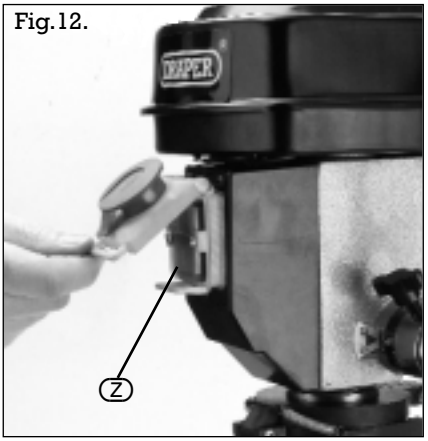
In the event of a power failure the drill press will have to be manually re-started.

To switch the drill press on, lift up the sprung cover and push the button marked (I).

To switch the drill press off, lift up the sprung cover and push the button marked (O).

To switch the drill press off in an emergency strike the cover firmly which will trigger the (O) button.

Fig.12.

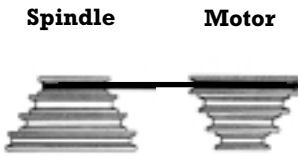


OPERATION AND USE

SPINDLE SPEEDS

Five spindle speeds of: 600, 890, 1360, 2016, and 2800rpm are available with your drill. The highest speed is obtained when the belt is on the largest step of the motor pulley and the smallest step of the spindle pulley as shown in Fig. 13.

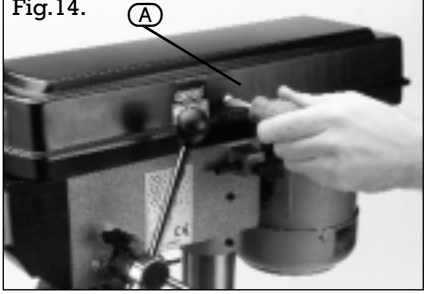
Fig.13.



CHANGING SPEEDS AND ADJUSTING BELT TENSION

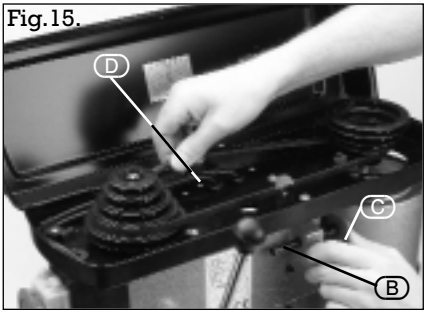
1. Disconnect the drill press from the power supply.
2. Lift up the belt and pulley guard (A) Fig. 14.

Fig.14.



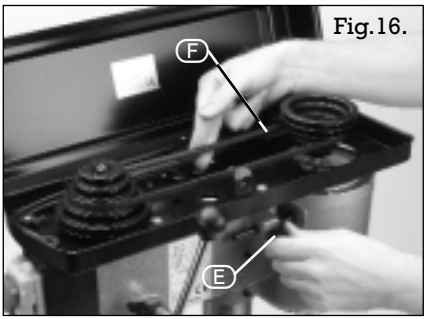
3. Release the belt tension by loosening locking knob (B) Fig. 15 and moving tension lever (C) towards the front of the drill press.
4. With the belt slack, position the belt (D) on the desired steps of the motor and spindle pulleys for the correct speed as shown in Fig. 15.

Fig.15.



5. After the belt is positioned on the desired steps of the pulleys, pivot the motor away from the drill press head until the belt is properly tensioned and tighten tension lock knob (E) Fig. 16. The belt should be just tight enough to prevent slipping. Excessive tension will reduce the life of the belt, pulleys and bearings. Correct tension is obtained when the belts (F) can be flexed about 25mm out of line midway between the pulleys using light finger pressure.

Fig.16.



OPERATION AND USE

1. The table (G) Fig. 17 can be raised or lowered on the drill press column by loosening the table clamp handle (H) and turning the table raising and lowering handle (I). After the table is at the desired height, tighten handle (H).

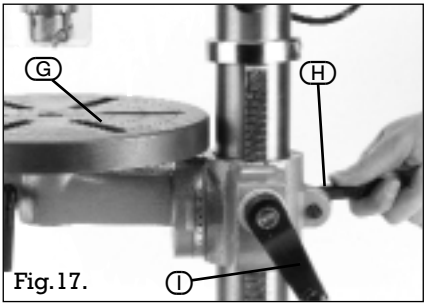


Fig.17.

2. The table can be rotated 360° on the table bracket by loosening lock handle (J) Fig. 18.

3. The table can be tilted right or left by unscrewing and removing the table alignment grub screw Fig. 18.

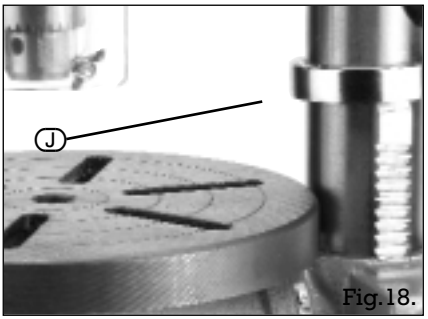


Fig.18.

4. Loosen table locking bolt (K) (Fig.19) tilt table to desired angle. Retighten bolt (K). When returning table to the level position replace table alignment grub screw. This will automatically position the table surface at 90° to the spindle.

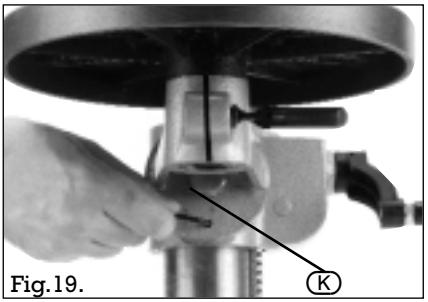


Fig.19.

5. A tilt scale (L) Fig. 20 is provided on the table bracket casting to indicate the degree of tilt. A cursor line (M) is also provided on the table to line up with the scale.

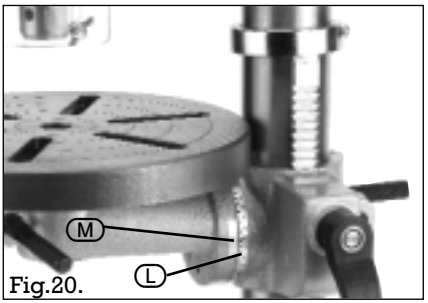


Fig.20.

OPERATION AND USE

ADJUSTING SPINDLE RETURN SPRING

For the purpose of automatically returning the spindle upward after the hole has been drilled, a spindle return spring is provided in the spring housing (N) Fig. 21. This spring has been properly adjusted at the factory and should not be disturbed unless absolutely necessary. To adjust the return spring, proceed as follows:

1. Disconnect the drill press from the power supply.
2. Loosen the nut (O) slightly. Do not remove nut (O) from shaft (P).

3. While firmly holding spring housing (Q) Fig. 22 pull out housing and rotate it until the boss (R) is engaged with the next notch on the housing. Turn the housing anticlockwise to increase and clockwise to decrease spring tension. Then tighten the nut to hold the housing in place.

IMPORTANT:

Nut (S) Fig. 24 should not contact spring housing when tight.

Fig.21.

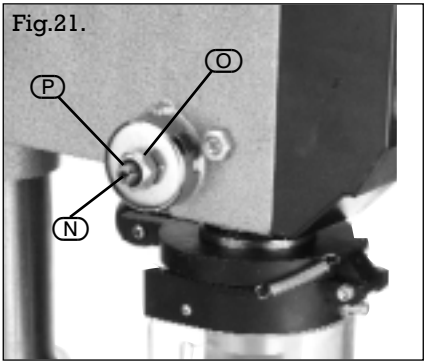
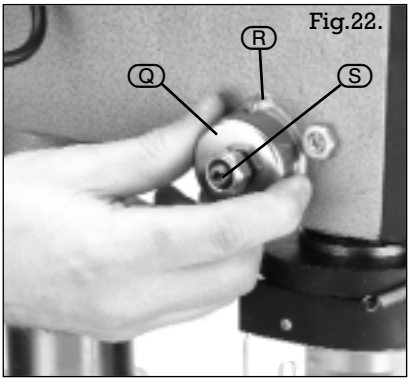


Fig.22.



DRILLING HOLES TO DEPTH

Where holes are to be drilled to exactly the same depth, a depth stop is provided in the pinion shaft housing and is used as follows:

1. Loosen lock handle (U) Fig. 23 and rotate housing (T) until the pointer (V) lines up with the depth you wish to drill on the scale (W). Then tighten lock handle (U).
2. All holes will then be drilled to the exact depth, as indicated on the scale.

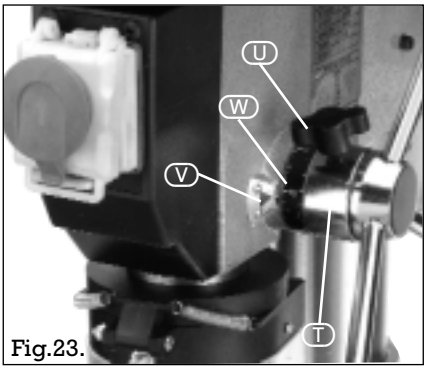


Fig.23.

OPERATION AND USE

The following directions will give the inexperienced operator a start on common drill press operations. Use scrap material for practice to get the feel of the machine before attempting regular work.

CORRECT DRILLING SPEEDS

Factors which determine the best speed to use in any drill press operations are:

Type of material being worked,

Size of hole,

Type of drill or other cutter,

Quality of cut desired.

The smaller the drill, the greater the required r.p.m. In soft materials the speed should be higher than for hard materials.

DRILLING METAL

Use clamps to hold the workpiece when drilling in metal. The workpiece should never be held in the hand; the drill may snatch the workpiece at any time, especially when breaking through. If the workpiece is twisted out of the operator's hand, they may be injured.

The workpiece must be clamped firmly while drilling; any tilting, twisting or shifting results not only in a rough hole, but also increases drill breakage. For flat work, lay the workpiece on a wooden base and clamp it firmly down against the table to prevent it from moving. If the workpiece is of irregular shape and cannot be laid flat on the table, it should be securely blocked and clamped using vee-blocks, clamps or a machine vice.

TROUBLE SHOOTING

WARNING: FOR YOUR OWN SAFETY ALWAYS TURN THE MAIN SWITCH ON THE MACHINE "OFF" AND REMOVE THE PLUG FROM THE POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE OR TROUBLESHOOTING.

TROUBLE	PROBABLE CAUSE	REMEDY
Noisy Operation	1. Incorrect belt tension	1. Adjust tension
	2. Dry spindle	2. Lubricate spindle with grease (ISO VG68)
	3. Loose spindle pulley or motor pulley	3. Tighten set screws in pulleys
Bit burns or smokes	1. Incorrect speed	1. Change speed
	2. Swarf not coming out of hole	2. Retract bit frequently to clear swarf
	3. Blunt bit	3. Sharpen or replace bit
	4. Feeding too slow	4. Feed fast enough to allow drill to cut
	5. Not lubricated	5. Lubricate bit
	6. Bit running backwards	6. Check motor rotation
Excessive drill run-out or wobble	1. Bent bit	1. Use a straight bit
	2. Worn spindle bearings	2. Replace
	3. Bit not properly installed in chuck	3. Install bit centrally
	4. Chuck not properly installed	4. Refit chuck properly
Drill binds in workpiece	1. Workpiece pinching bit or excessive feed pressure	1. Support or clamp workpiece
	2. Improper belt tension	2. Adjust tension

OPTIONAL ACCESSORIES

The following accessories are available from your local Draper stockist.

DRILL PRESS VICES

PART No.DPV
Manufactured from cast iron with fully hardened jaws. Carton packed.

STOCK No.	JAW-MM WIDTH	JAW-MM OPENING
54634	75	80
54635	100	90
54636	120	118
54637	145	140

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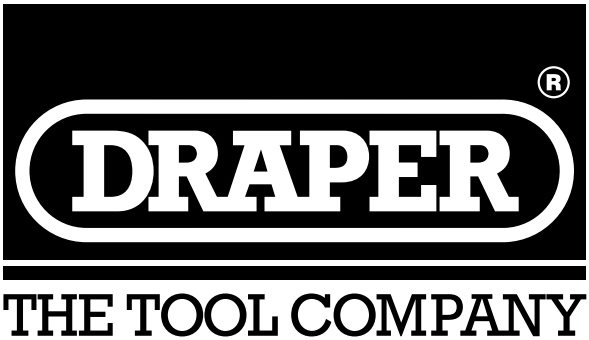
NOTES

NOTES



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